RRs in the New Freight Era

NUTC Sandhouse 2017

Xmastime (12/5), 2017

Anthony B Hatch
abh consulting/NYC

Railroads Since Staggers

- Regulation Era (1900s-1980)
  - Awful ROI
  - Cash used for Conglomeracy
- Deregulation Era (1981-1995)
  - Cost Cutting (Labor, Rolling Stock, RE)
  - Short Line Creation
  - Non-core (non-rail) assets sold/spun
  - Market share losses to deregulated, subsidized trucking
  - US manufacturing decline

- Core Consolidation Era (1995-2002)
- “Railroad Renaissance” (2003-2014)

Railroad Renaissance Prep

- Core Consolidation (1995-2002)
  - Mergers (& IPOs) create US “Big 4”+ 2 Canadians (& KSU and 600 short lines)
  - Mergers stall ROI improvement initially, targets late (culture/IT/Capex issues, etc)
  - Globalization & Response – ther creation of modern international intermodal
  - PRB Coal booms
  - EHH takes over at CN

Renaissance at last 2003-2014)

- Railroads gain pricing power ~2003
- RR ORs decline; ROIs reach CoC levels
- Rereg threats emerge/rails' financial position improves
- RR Capex jumps to 20%+/revenues (but so does DPS/repos)
- Intermodal booms (with domestic joining)
- Warren buys BNSF ('08)
- Activists emerge (TCI, 3G, Pershing, Mantle Ridge); EHH to CP
- Boom/Busts – not just Ag but ethanol, CBR
- Coal begins secular decline (2010)

Issues for RR/Intermodal to 2020

- Return to Growth?
- Fight over Capital – MoW vs Buybacks? Activists, IT, PTC, etc
- M&A Fight fallout effect on Capex?
- RR Pricing Power Still?
- Coal – Dead Cat Bounce?
- Factors: Oil Prices, Consumer Spend/GDP, Truck Capacity
- Infrastructure & the RR Advantage (vs subsidized highway)
- Trade and the Panama Canal impacts? NAFTA? China?
- Rail Service (& Safety) Deterioration?
- Productivity (train lengths, etc) Improvements
- Insourcing
- Driverless beats One Man Crews to the market?

Fork in the Road – Railroads 2015-?

- Coal plummets
- Rail recovery volumes don’t (yet) reach 2006-07 peak
- Auto recovery temporary?
- False Hopes? (Ethanol/CBR/Sand?/Plastics?)
- End of “Super Cycle” impacts Ag, Steel
- IM mysteriously slows 2015-16; recovers trend

Renaissance 2?

- Intermodal?
- Plastics? Housing? Infrastucture? (??) "Merchandise"?
- Trade??
- IT spend?
- IT Threat? (AV/Tesla/Amazon/etc)?
- Capex vs. FCF?
- PSR vs Other?
- Short Lines?

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Port of LONG BEACH

Hunter's Back!

- **Mantle/EHH Team Up - EHH leaves CP – and gets his wish (a US Class One) – NOTE: *Not* about consolidation!**
- **As such, only 1 Stakeholder group – CSX shareholders – needed to approve! (2/10)**
- **Precision Railroading will improve OR but*when?***
  - **CSX isn't like CP (damaged goods)**
  - **CSX isn't like CP (density/complexity)**
  - **Customer Service is more important than ever!**
- *Changes already* – Hump/Flat yards, Work Rules, Service metrics, Stored rolling stock, Customer reactions
- Late Summer Service Crisis (Stabilized?)
- *Key Dates – October 28-29 (CANCELLED!)*

New Administration “Promises”

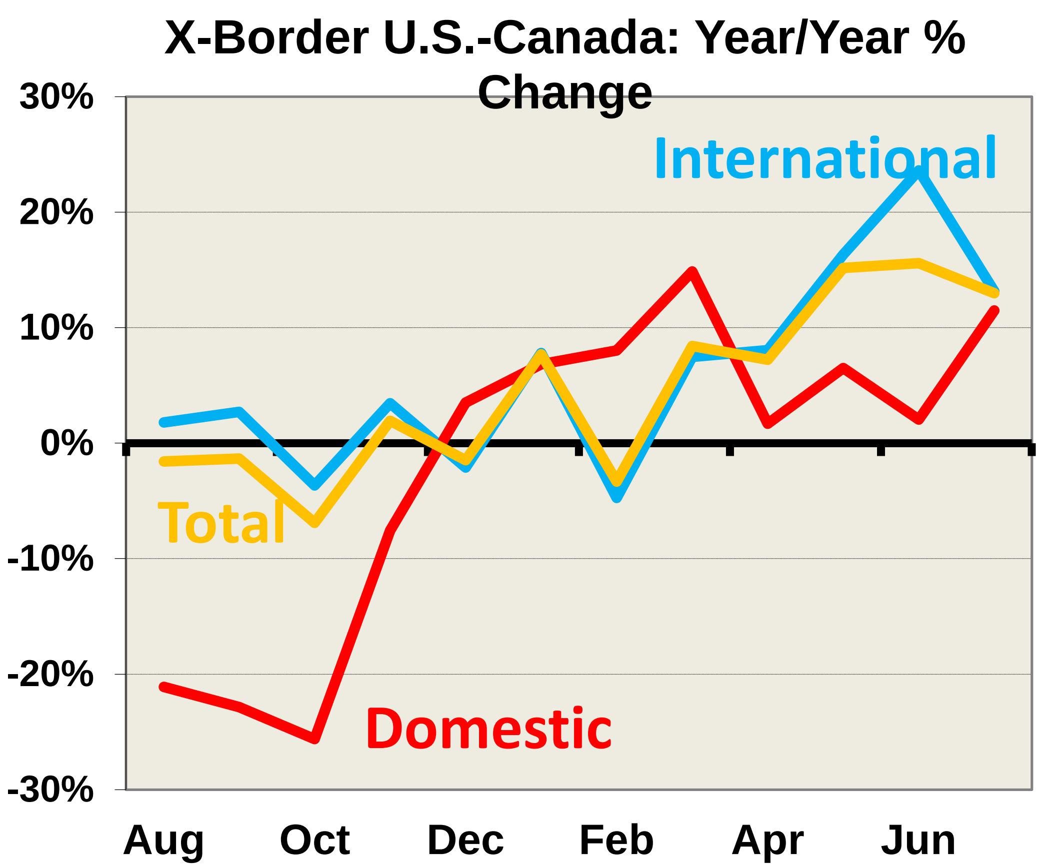
1. The end of the “War on Coal” – maybe a spark amongst the smoke?
2. Drill, Baby, Drill (and pipelines, eh!)
3. Infrastructure (Privately Financed) – *“Show me”*
4. Bye-bye Trade (NAFTA)?? Deficits misunderstood?
5. Get out and stay out! End of the 150-year relationship of GOP & “Big Business” (ask Ford)
6. War on Regulation (maybe) on Red tape (likely)
7. Lower taxes – still waiting////
8. Labor – Who’s driverless, now? (Big RR labor Year; missed opportunity?)

Port of LONG BEACH

Infrastructure Promises vs. Reality

- Jan 20 POTUS Priority #1 ($1 *trillion*)
- 80/20 split in favor of PPPs (?)
- Reality: H1/17 Public Construction Spend down 10%
- Reality: Q2 Infrastructure Expense down to 1.4% US GDP (lowest on record)
- But….Regulatory/Permitting) reform may help private networks (such as railroads)

Cross-Border: U.S./Canada

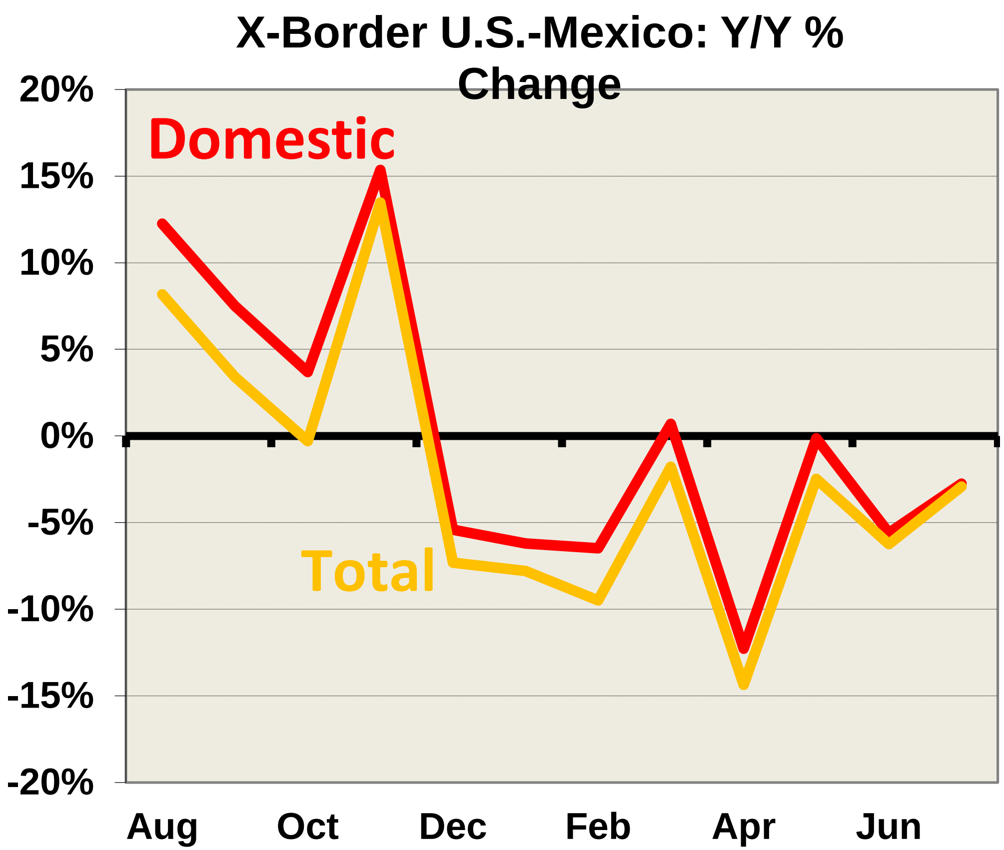


Sources: GTC, FTR, IANA; Copyright 2017

	Cross Border U.S.-Canada	North America
July	+13.0%	+6.6%
Year to Date	+9.2%	+3.7%
Last 12 Months	+4.5%	+2.0%
% of Total	6.9%	100.0%

Source: IANA ETSO, FTR Analysis

Cross-Border: U.S./Mexico



Sources: GTC, FTR, IANA; Copyright 2017

	Cross Border U.S.-Mexico	North America
July	-2.9%	+6.6%
Year to Date	-6.4%	+3.7%
Last 12 Months	-2.3%	+2.0%
% of Total	1.7%	100.0%

Only 33 ISO Boxes Crossed the Border on intermodal in J

Source: IANA ETSO, FTR Analysis

The Freight Recession 2015-16 Silver Linings?

- *Service (& Safety) Recovery (<u>long term!)</u> Trend (Capex Pays Off)*
- *Productivity (& volume?) Inflection At Last (H217?)*
- Restoration of the "Grand Bargain" – at risk again?
- Reduced (N/T) Political Pressure (lots of other things to focus on!)
- Coal "stabilization" (Part Two)??
- IM (etc.) latent demand....Bi-Modal results; Ag Volumes
- Gas-fired Industrial Buildout; Southbound migration of industry (see WoodMac & PLG and BofA, etc)
- *Revised MoW Capex (GTMs/Mix) frees CF/2017+*

The “Grand Bargain”

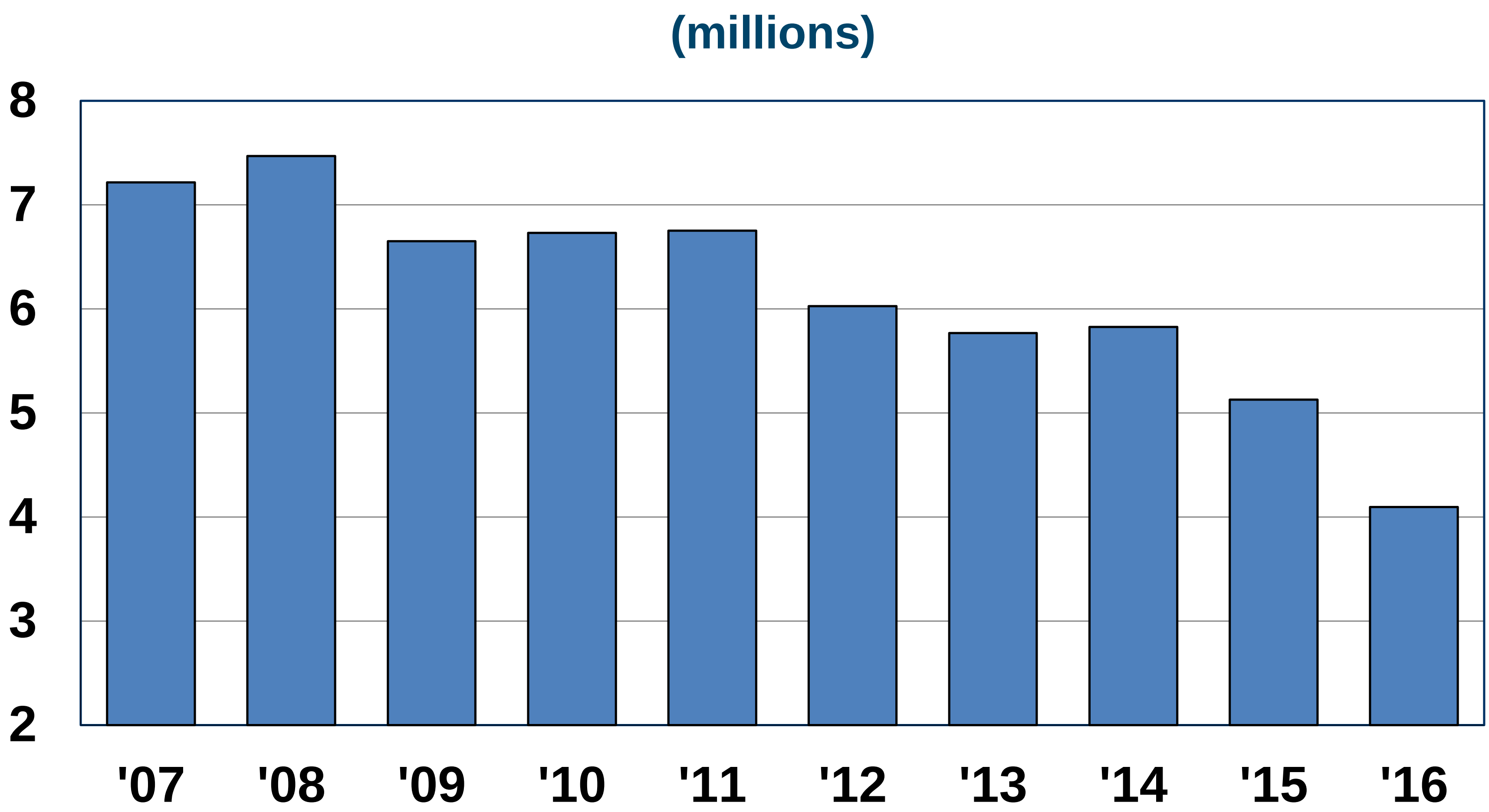
- *In return for higher prices (& ROI), rails spend, increase capacity & improve service* (2005-2012) – The unstated **“Grand Bargain”**
- Rails gain pricing power (~2003) & F/S
- Rails (re) Gain Market Share
- Rails Spend Cash “Disproportionately” on Capex (~18-20% of revenues)
- Promotes “*Virtuous Circle*” – all stakeholders benefit
- Under challenge, perceived and real

Future Growth Potential (Revised)

Secular stories and specific targeted sectors (in order)….

1. ***Intermodal*** – international *and now* domestic
2. ***Chemicals/re-industrialization?*** Near-sourcing/*Mexico (??)*
3. ***Cyclical recovery*** – <u>housing</u>, *steel*, autos (still?) & parts, paper?
4. **Grain & Food** – Exports up 10% this CY? CY17 an issue, long term still positive: NA still the world's breadbasket, but obviously (un)*predictable?*
5. ***<u>Car-load merchandise – capacity available!</u>***
6. **Shale/(if not) oil/sand** – demonstrated "flexibility"
7. **Other rail opportunities** exist but in smaller scale: for example:
   - Unitization
   - Industrial Products/MSW
   - Perishables

U.S. Rail Carloads of Coal: Not Pretty!



Data are originations and do not include the U.S. operations of CN and CP.
Source: AAR *Weekly Railroad Traffic*

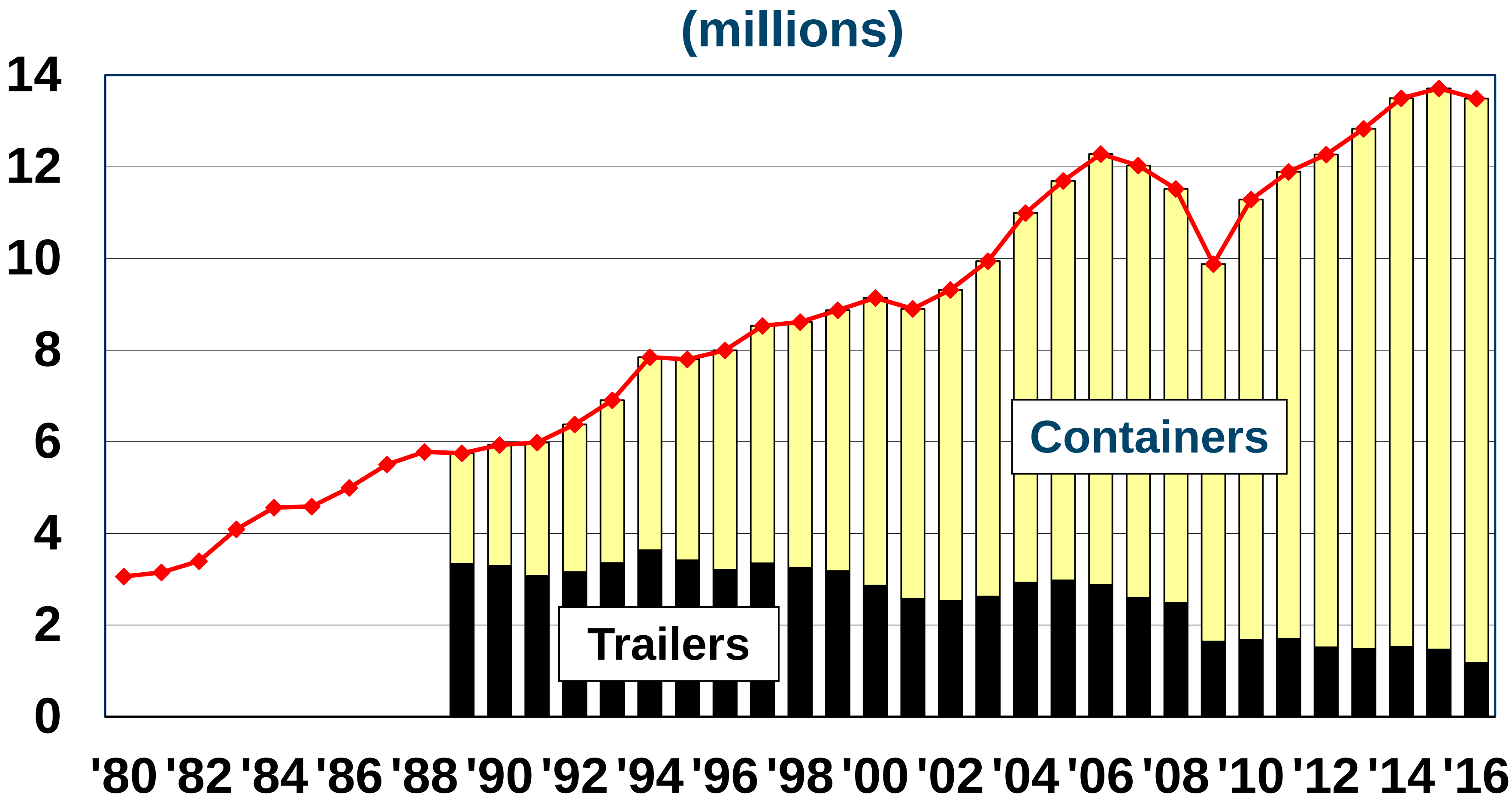
ASSOCIATION OF AMERICAN RAILROADS

Port of LONG BEACH

2017-18 RR EPS/Expectations

- RR earnings 2016-H1 struggled to match improved sentiment & increased expectations
- H2/16 Volume inflection (coal stabilizes/IM grows)
- ***H1 was well above bullish expectations; H2 faces tougher comps….***
- Productivity (and price) retention; improvement
- Capex down…but not out (?) – once again, CN leads the way!
- Guidance & Visibility slightly improved….
- Winter is coming (and going) – AV, etc
- Big Labor Year
- He’s Baaaaaack! (Fall, 2017) – watch for interesting reactions at NS, CP

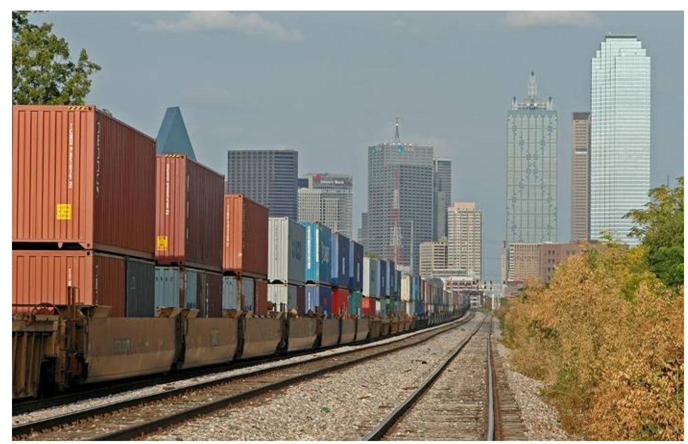
Rapid Intermodal Growth



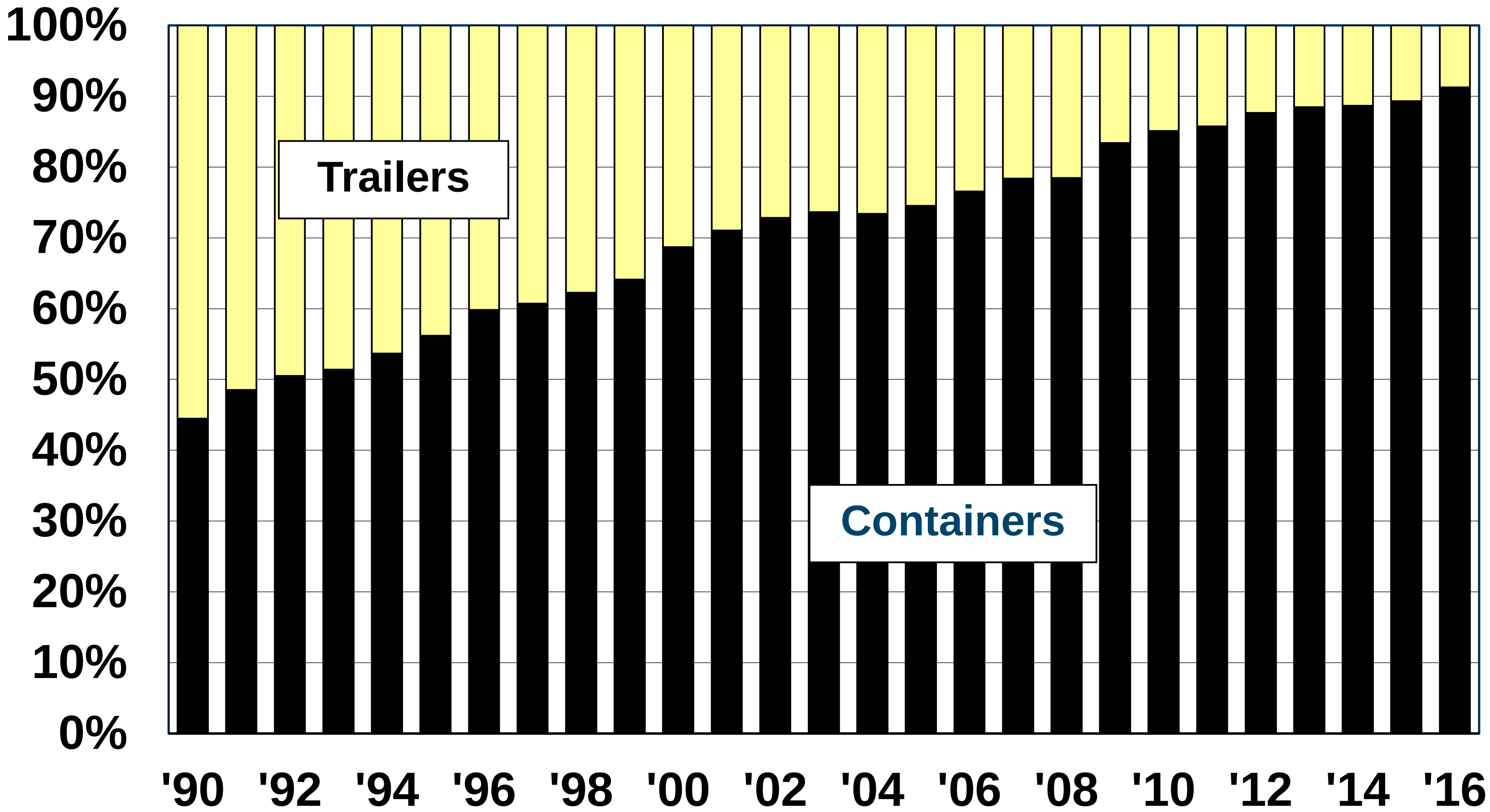
Source: AAR *Weekly Railroad Traffic*

Why Has Intermodal Grown Over the Years?

- Better service
- Huge RR investments
- Truck problems
  - -- fuel
  - -- driver shortages
  - -- congestion
- Switch from other freight cars
- Growing economy and *trade*



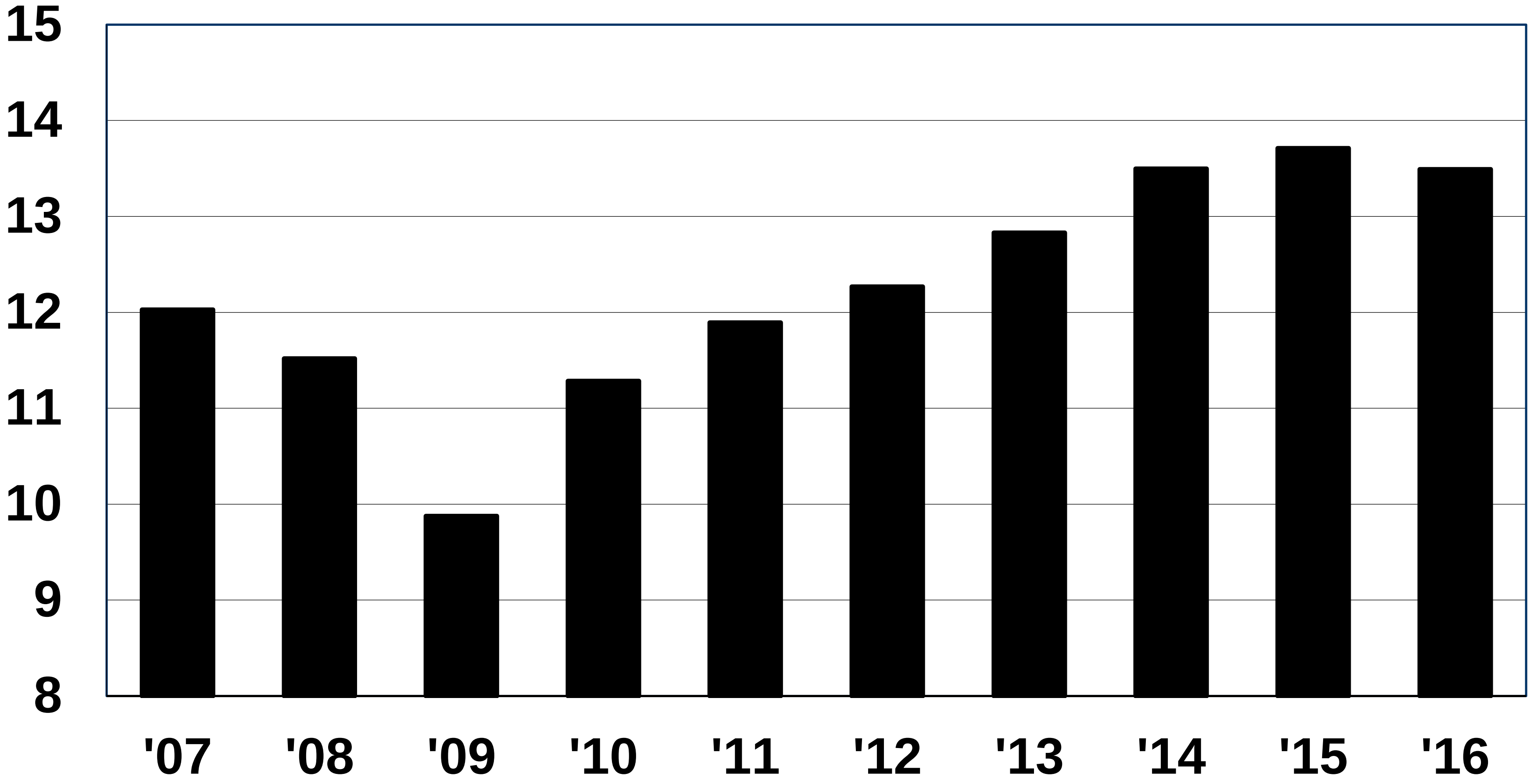
Containers vs. Trailers as % of U.S. Rail Intermodal Traffic



Source: AAR (*Weekly Railroad Traffic)*

Lower Intermodal Volumes in 2016

(millions of containers and trailers)

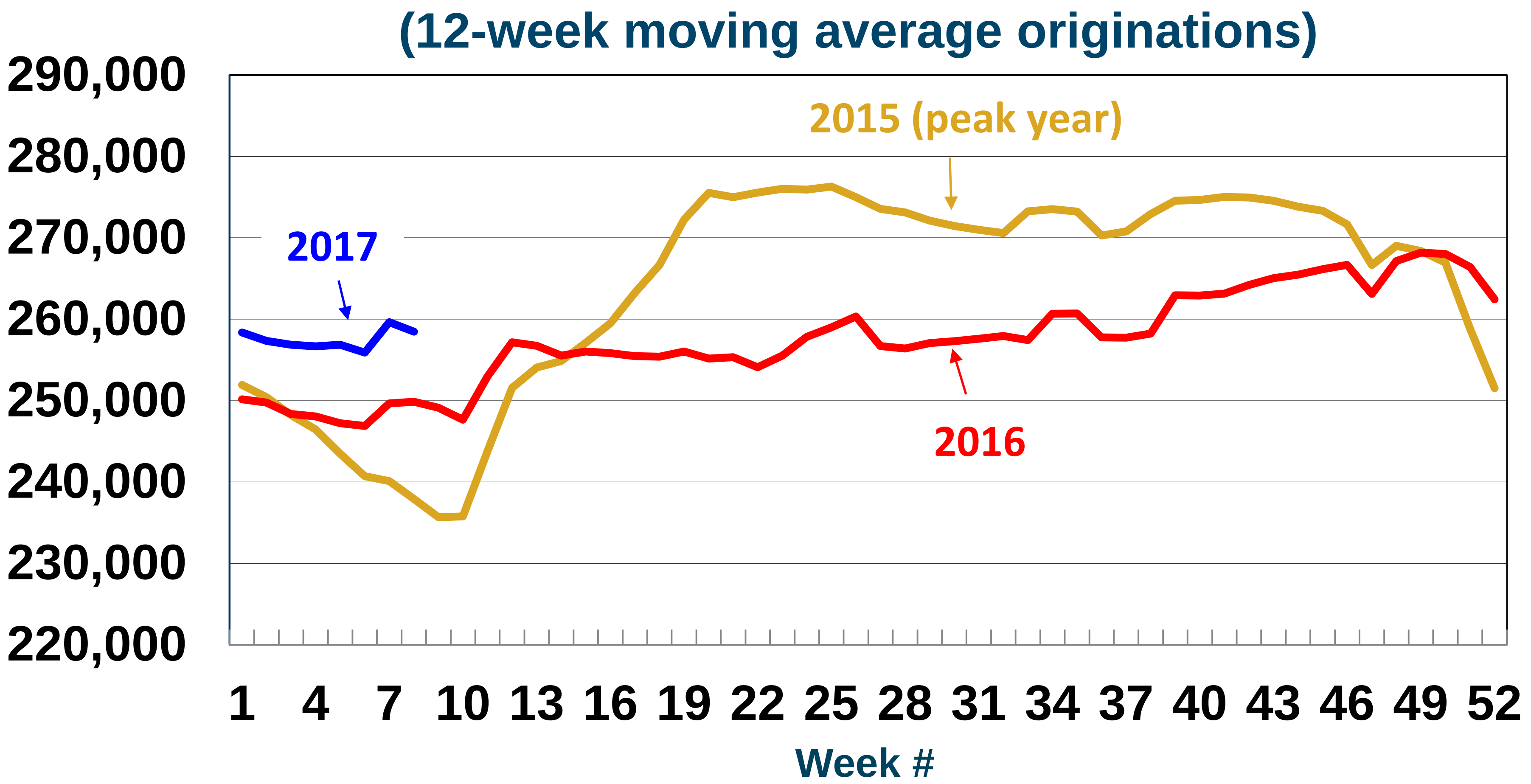


Source: AAR (*Weekly Railroad Traffic*)

Why Did Intermodal Fall in 2016?

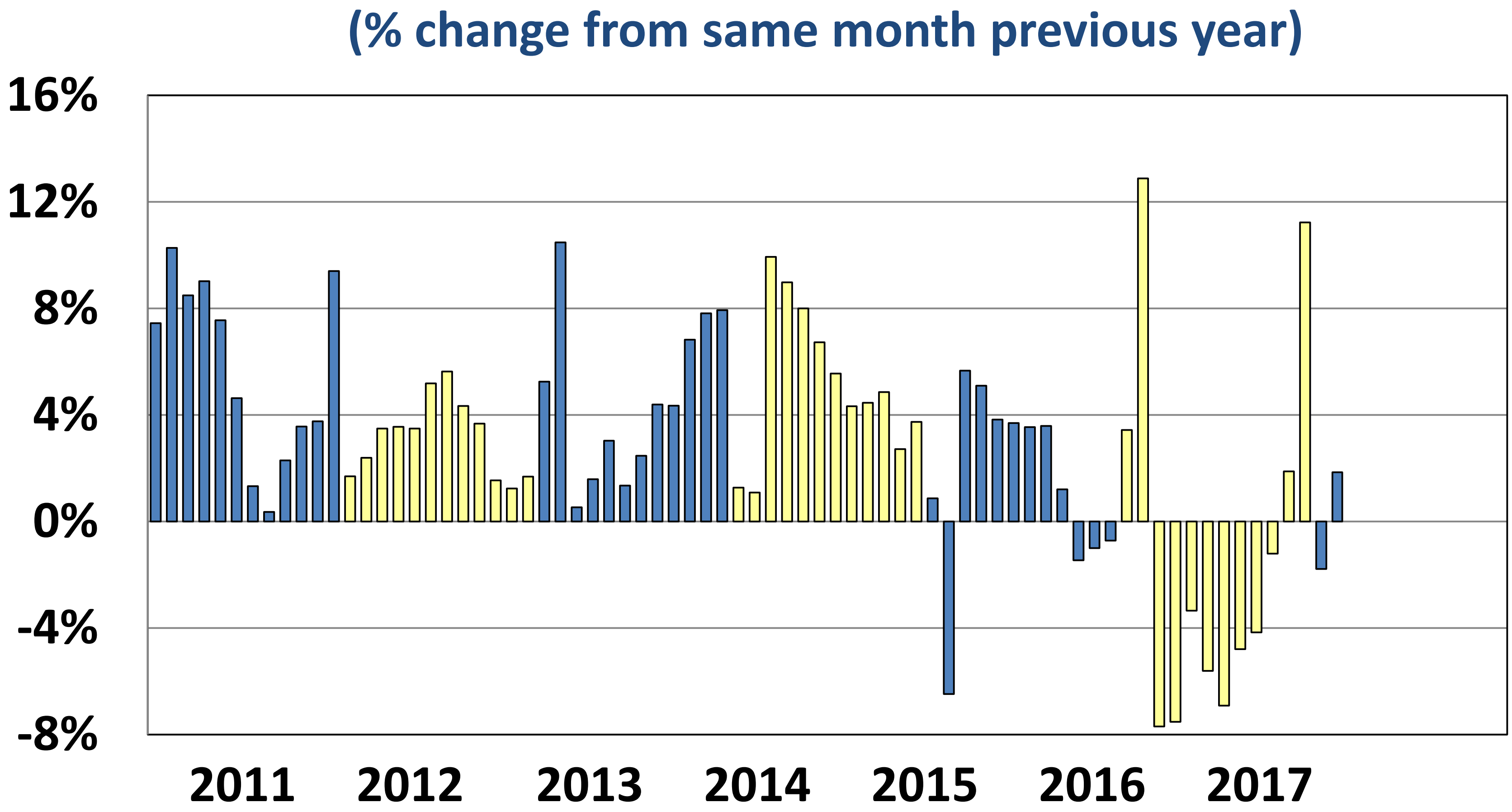
- Cheaper diesel fuel partially offsets RRs' fuel efficiency advantage
- Inventory overhang
- Truck overcapacity
- Driver turnover "only" ~75%
- Lack of strong economic growth

U.S. Rail Intermodal Traffic



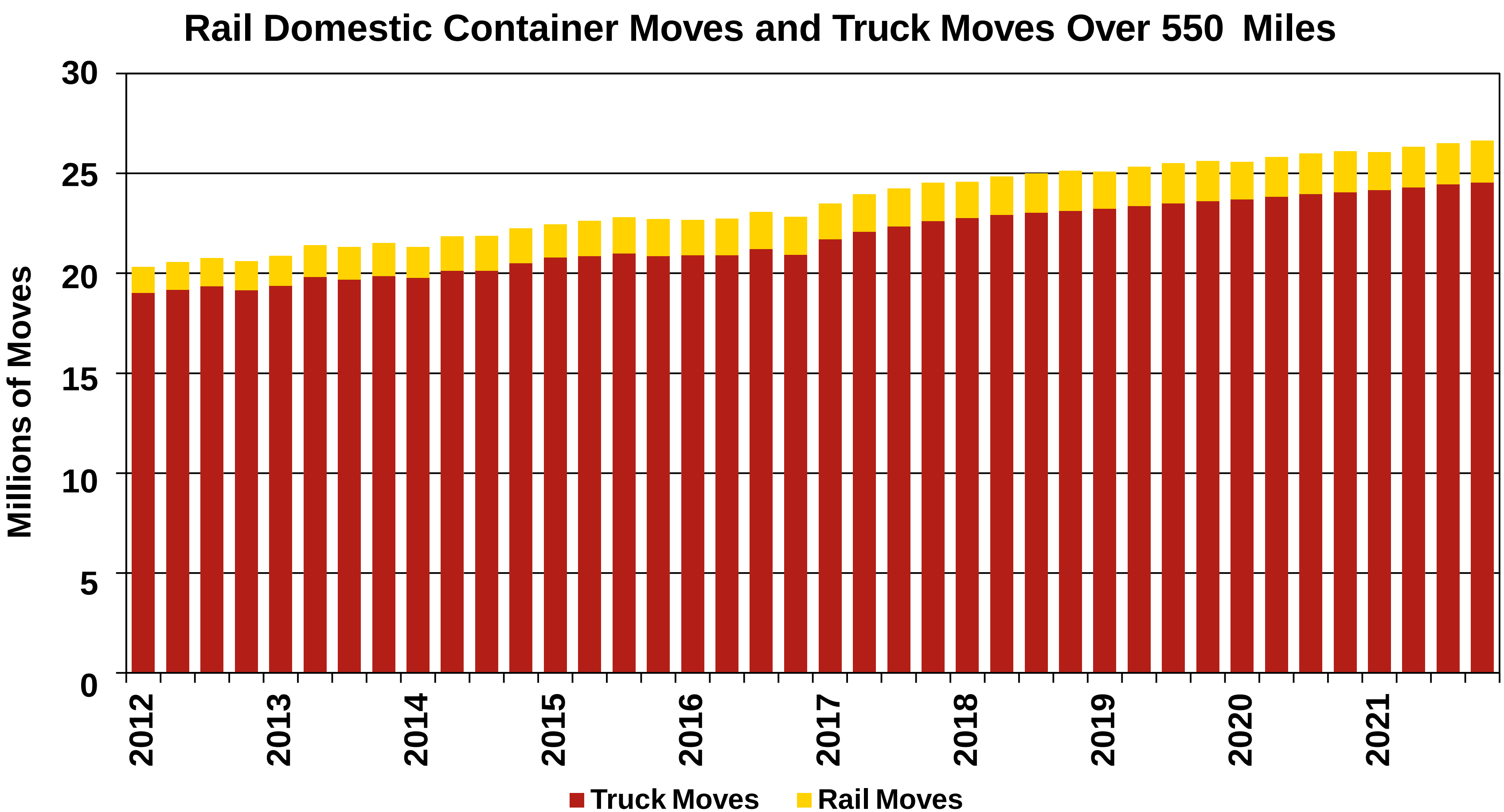
Data do not include the U.S. operations of CN and CP. Source: AAR

U.S. Rail Intermodal Traffic



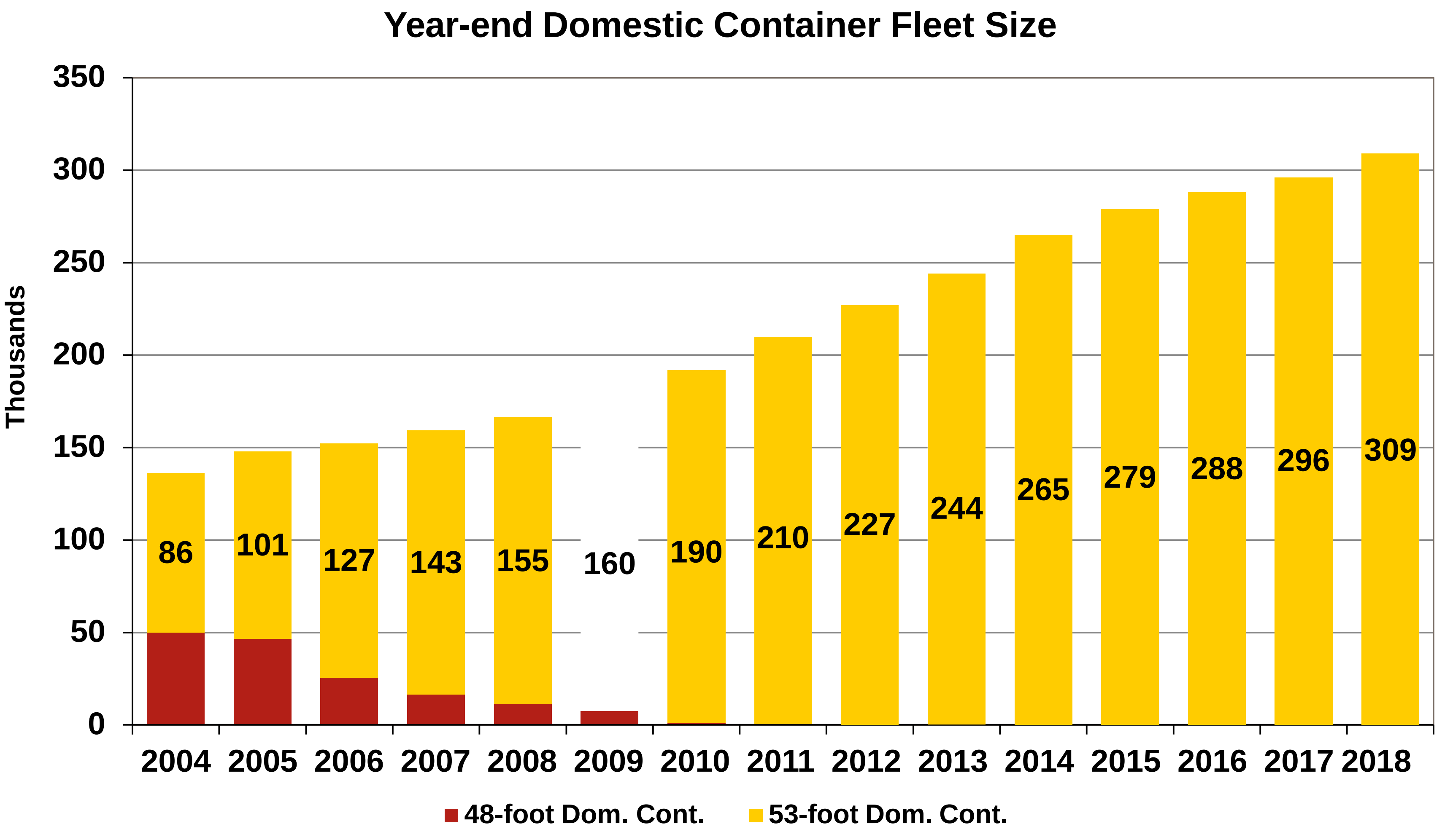
Data are based on originations, are not seasonally adjusted, and do not include the U.S. operations of CN and CP. Source: AAR *Weekly Railroad Traffic*

Overall domestic container volumes are still a small share of total freight



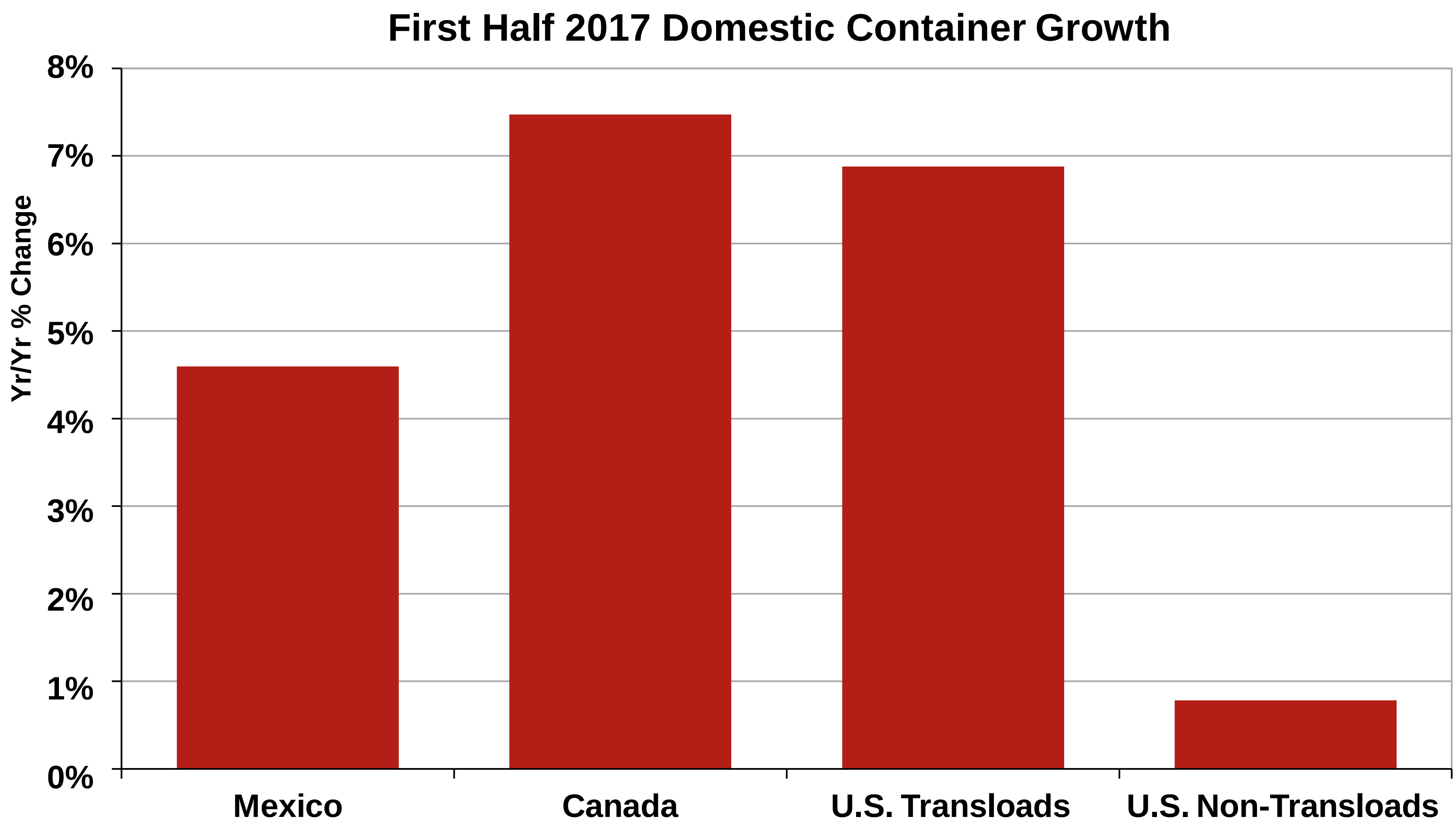
Source: FTR Transportation Intelligence, TTX

The domestic container fleet is expected to grow 4-5%



Source: TTX

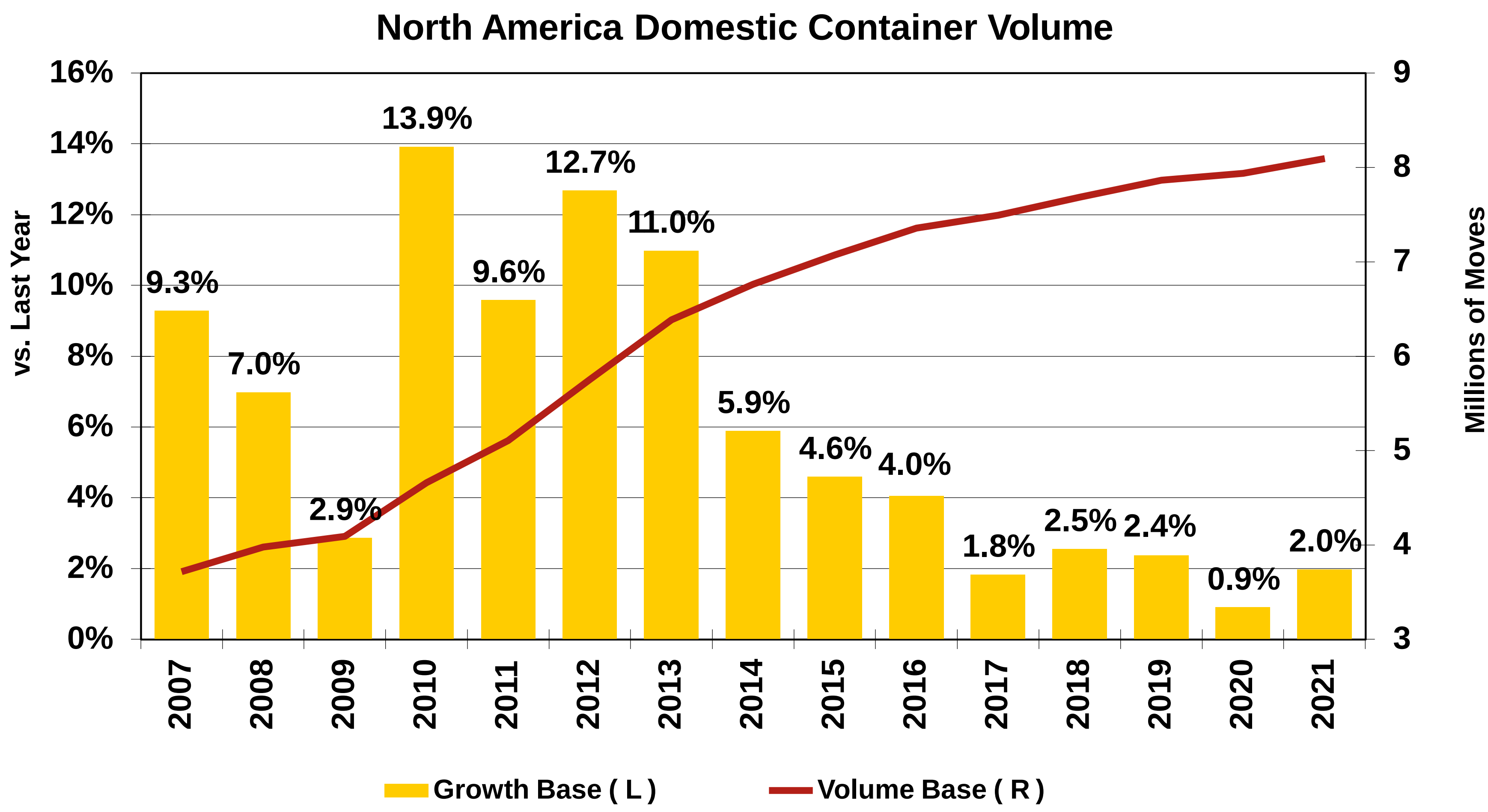
Domestic container growth has come disproportionately from Canada and transloads



Source: IANA

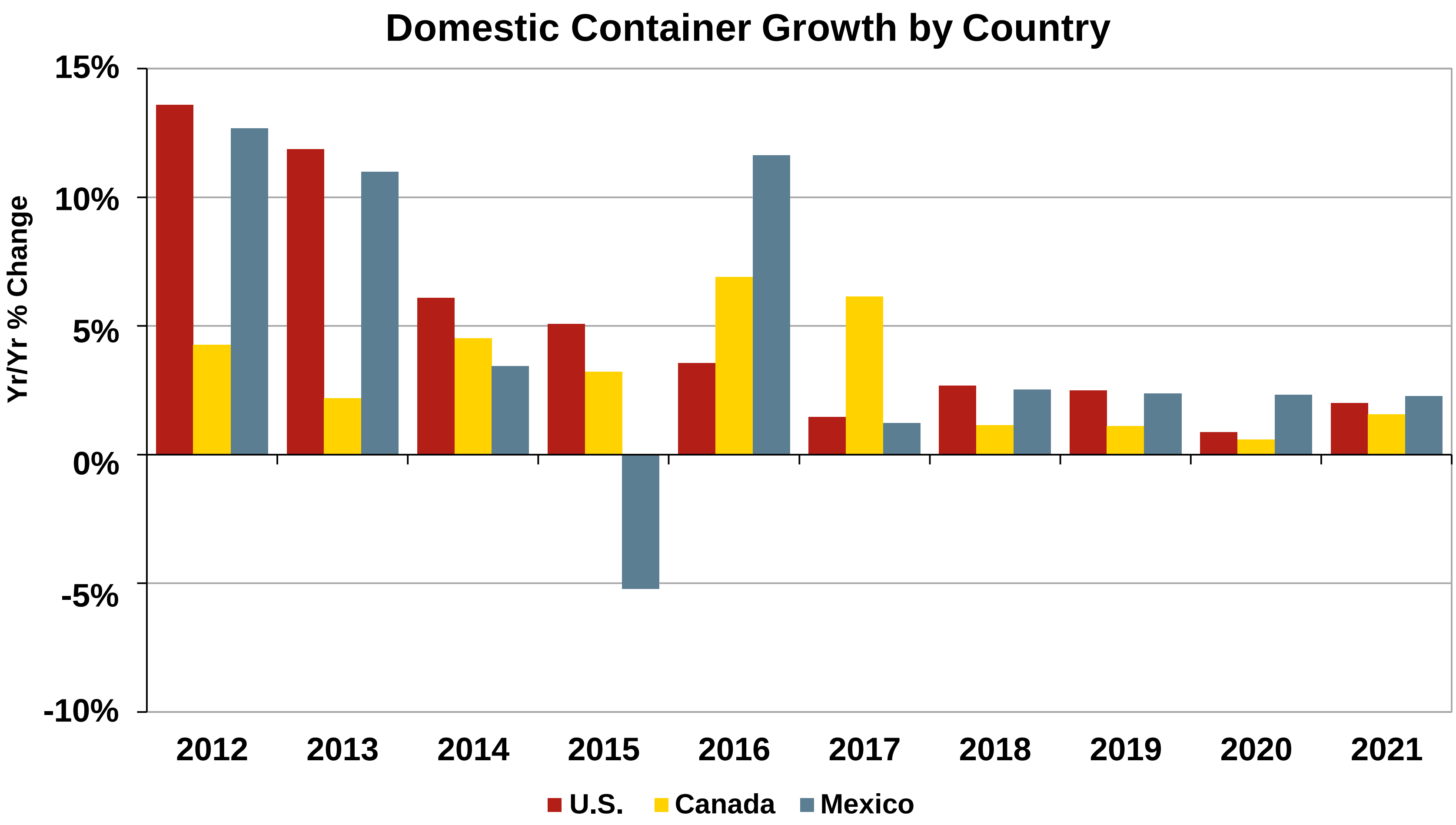
Domestic container growth should resume, but

slow over time as the market matures



Source: IANA, Licensed Materials, TTX

Domestic containers have been doing well in Canada, but it is unlikely they can maintain momentum



Source: TTX, IANA

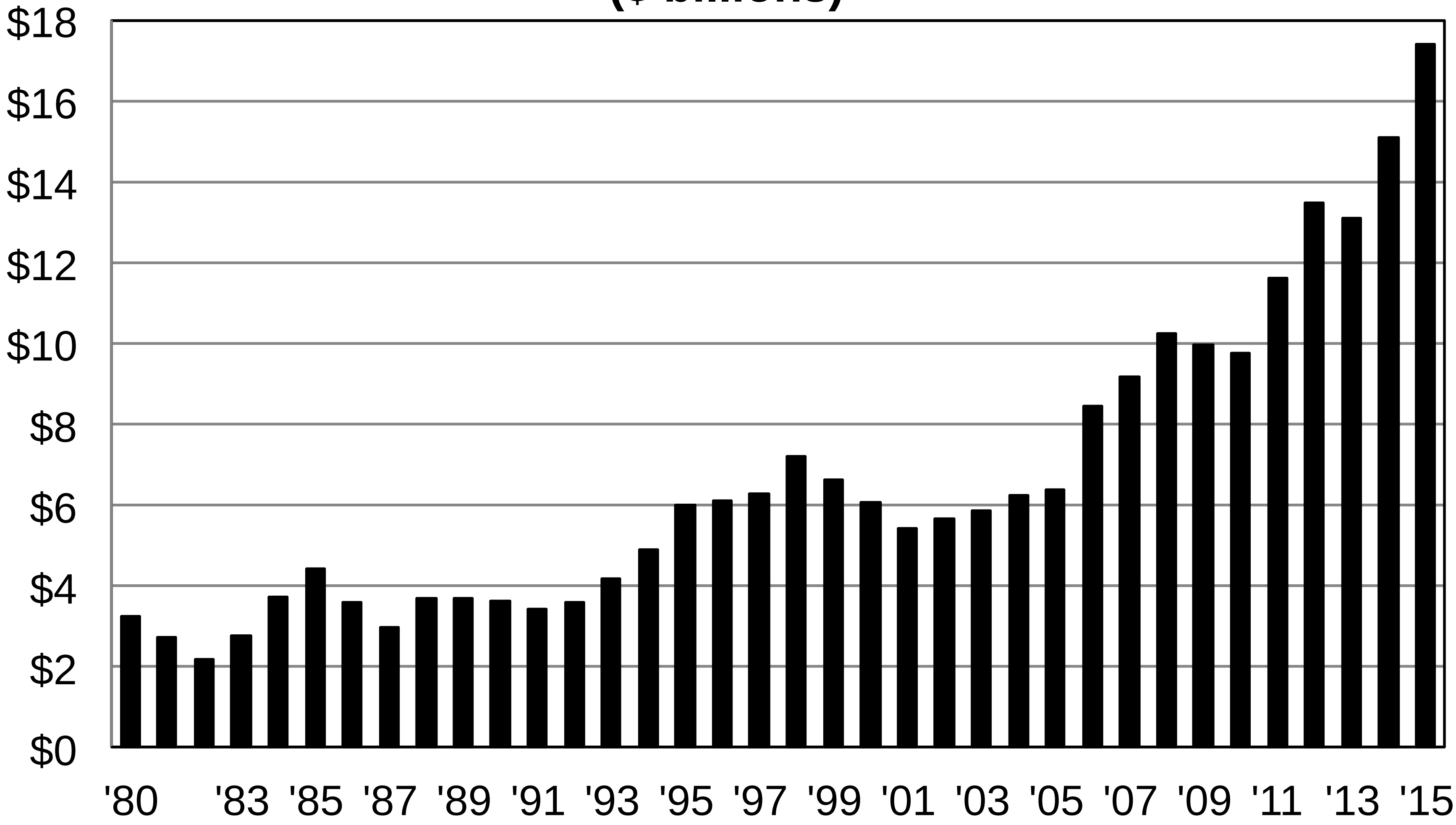
Rail (Five-Year) Growth Potential

1. Intermodal (domestic)*
2. Intermodal (International)
3. Mexico/Southern US
4. Chemicals/plastics (US Gulf)
5. Housing/Construction
6. Sand & Aggregates
7. Grain
8. Industrial Products/"Merchandise" (car-load)*
9. *Neutral* – Autos, Positive – Auto Parts*

(*Secular Modal Share Shift Opportunities)

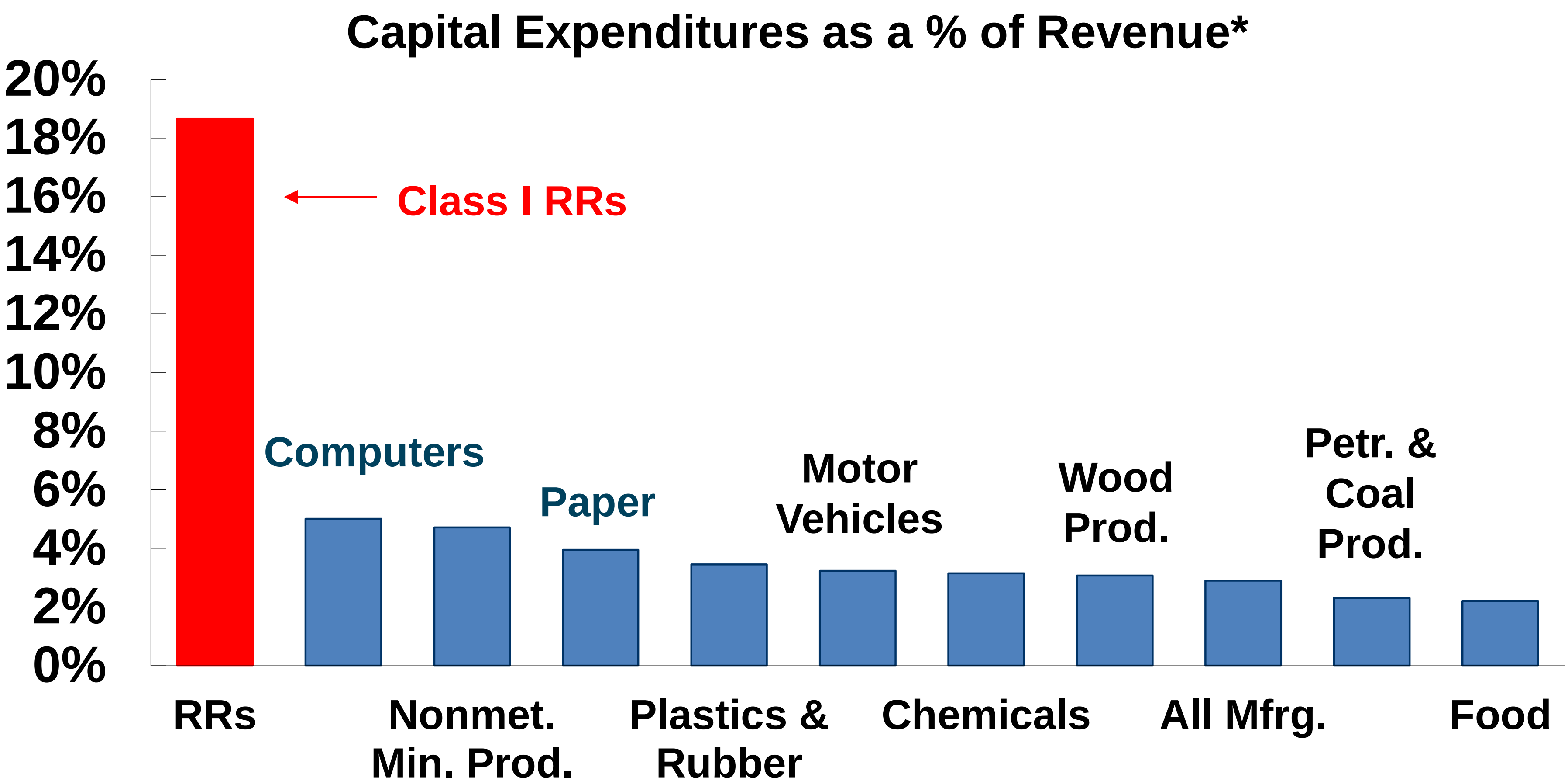
Long Term Trends in Class I Freight Railroad Capital Spending

($ billions)



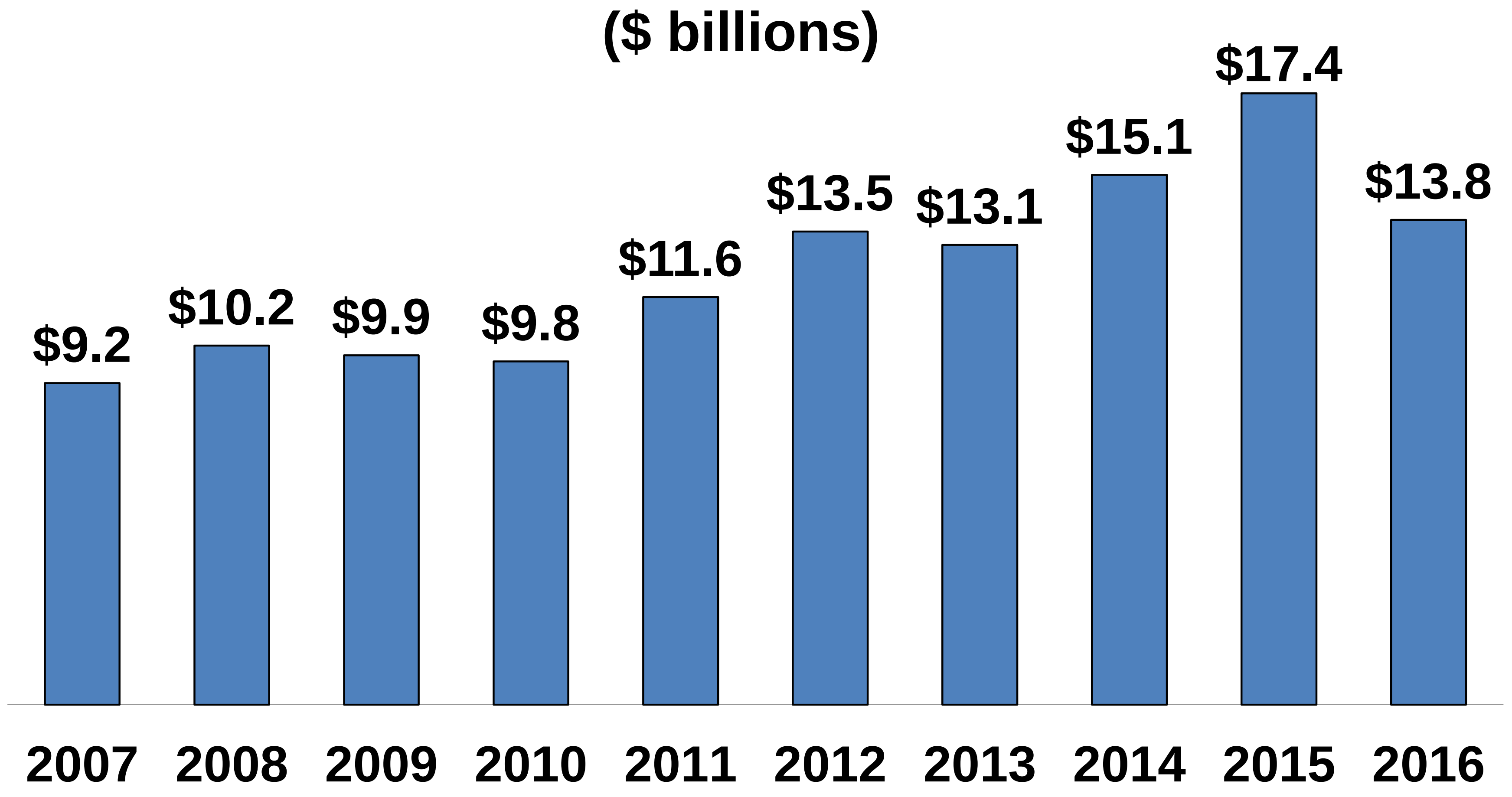
Source: AAR

Railroads: Far More Capital Intensive Than Other Industries



*Average 2006-2015 Sources: Census Bureau, AAR

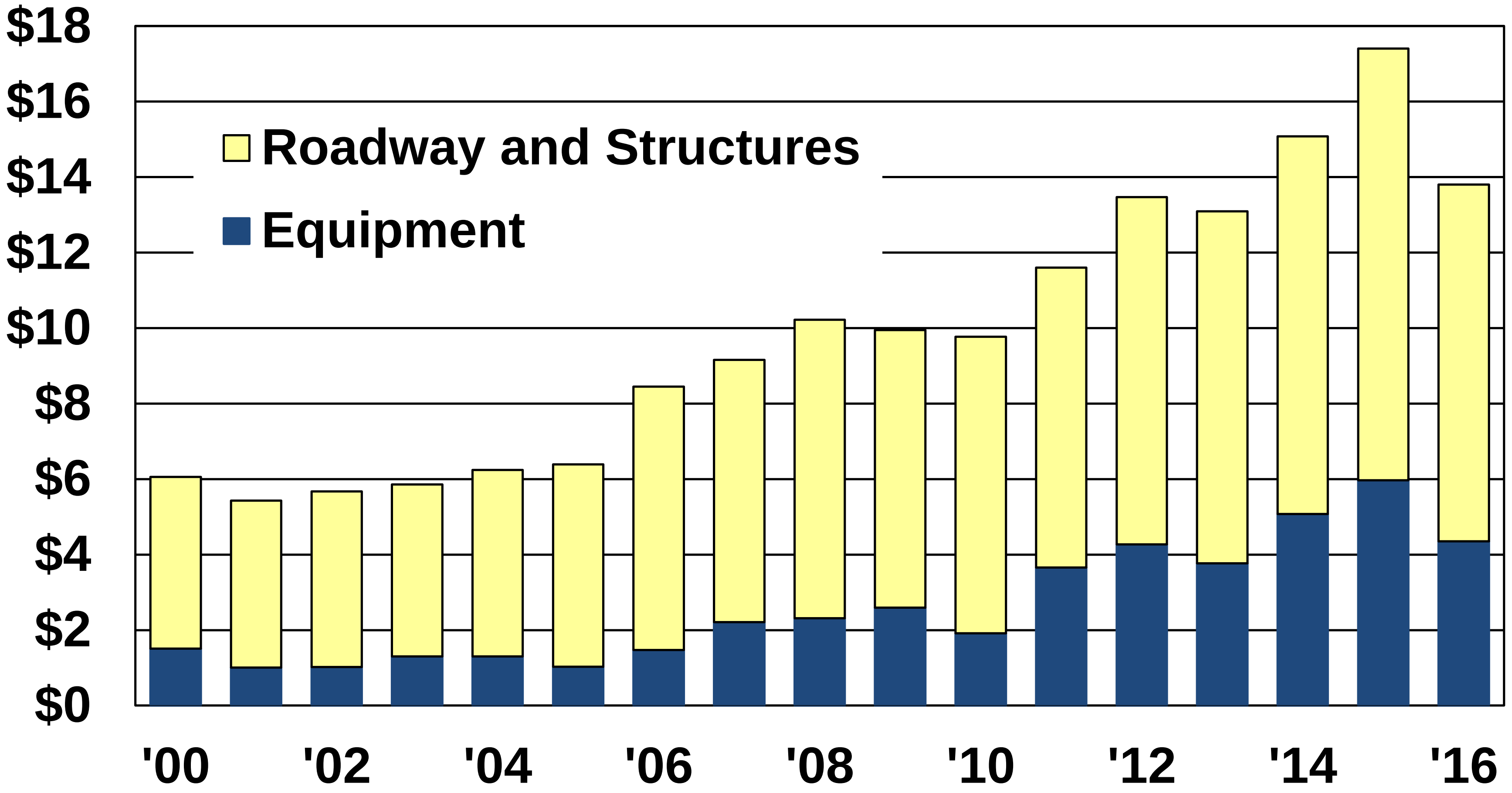
Record Railroad Capital Spending in Recent Years



Data are for Class I railroads. 2016 is preliminary. Source: AAR

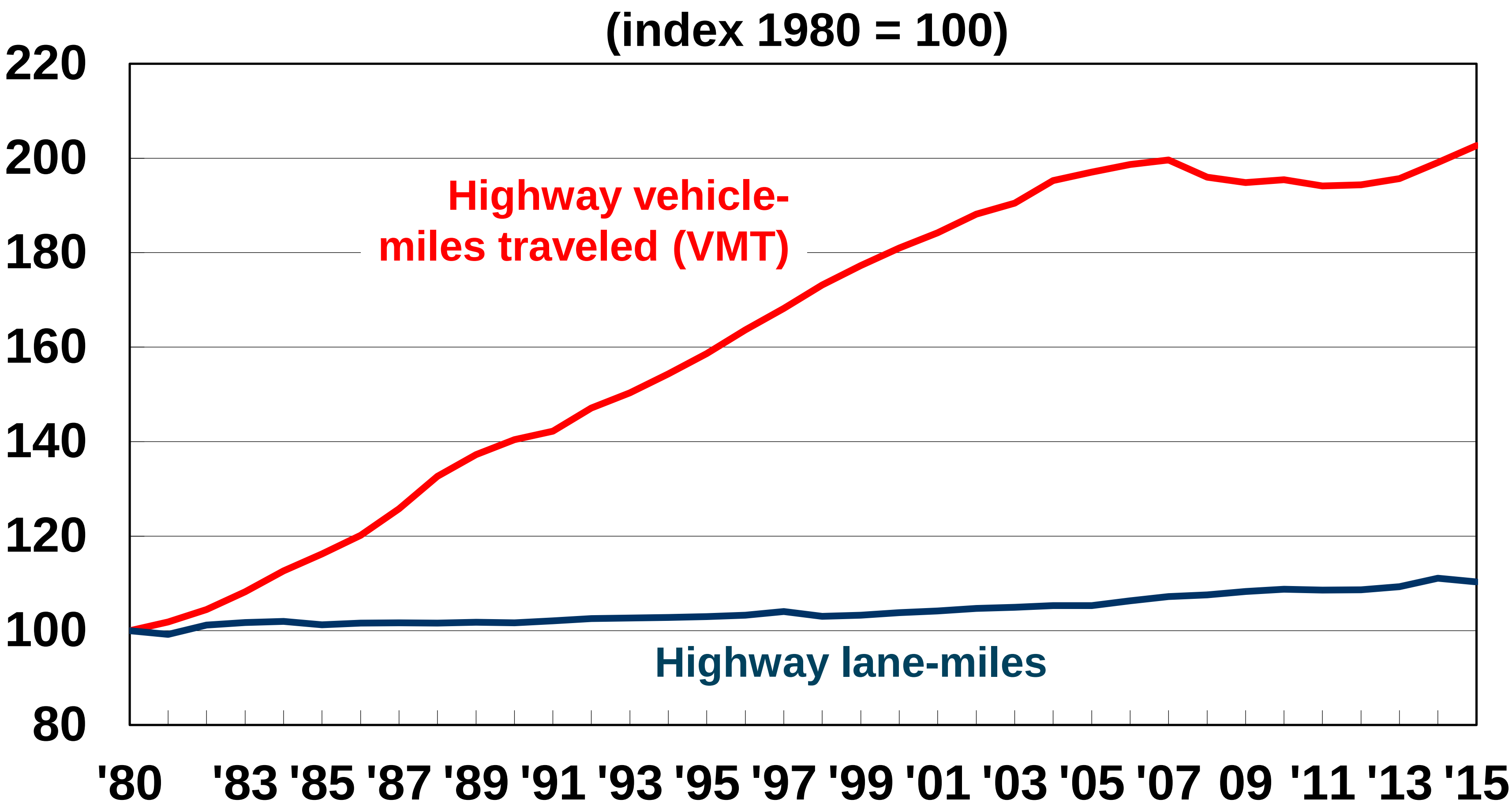
Railroad Capital Spending

($ billions, current dollars)



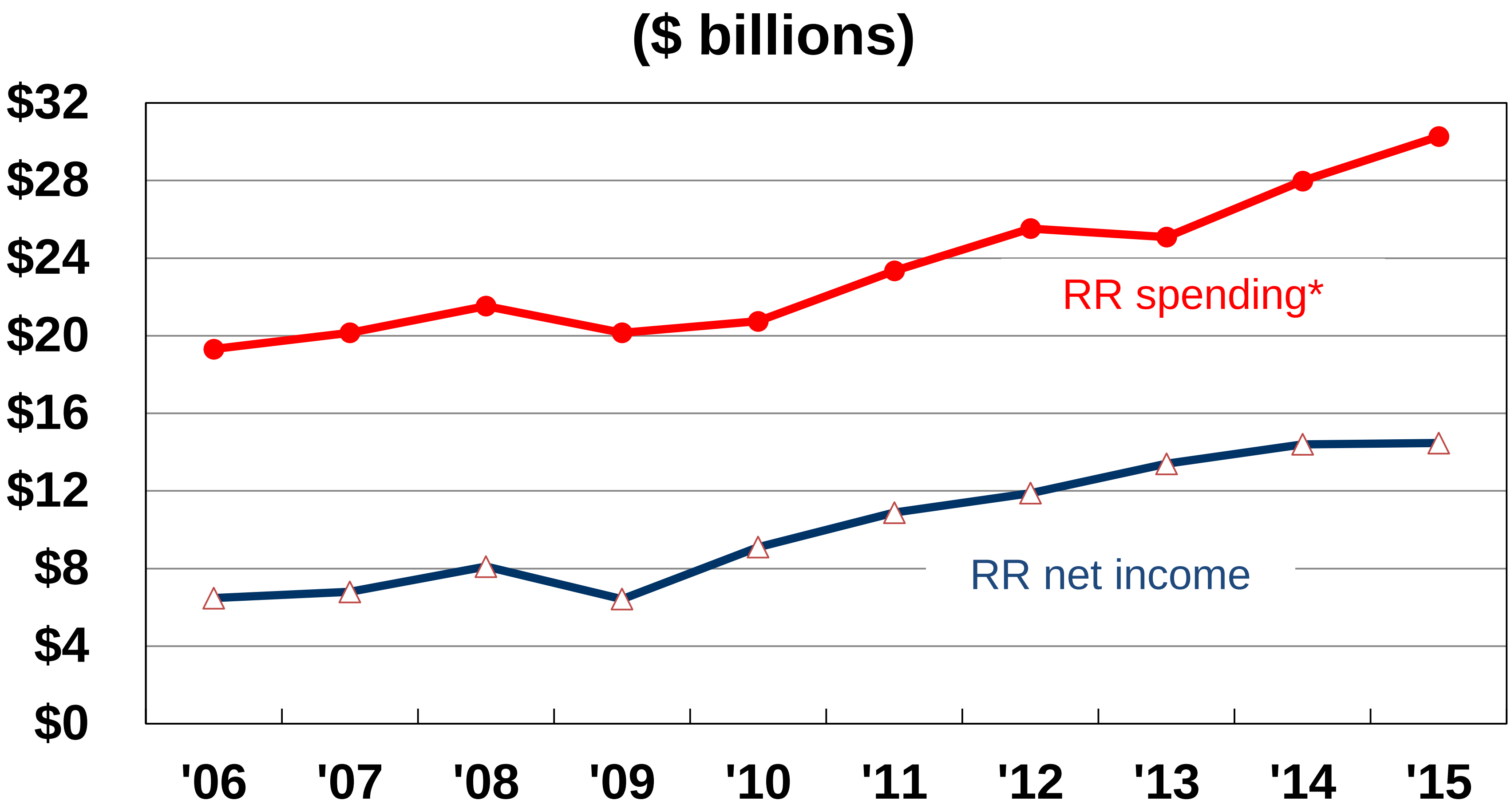
2016 is preliminary. Data are for Class I railroads. Source: AAR

Not Realistic to Think Highway Construction Will Keep Up



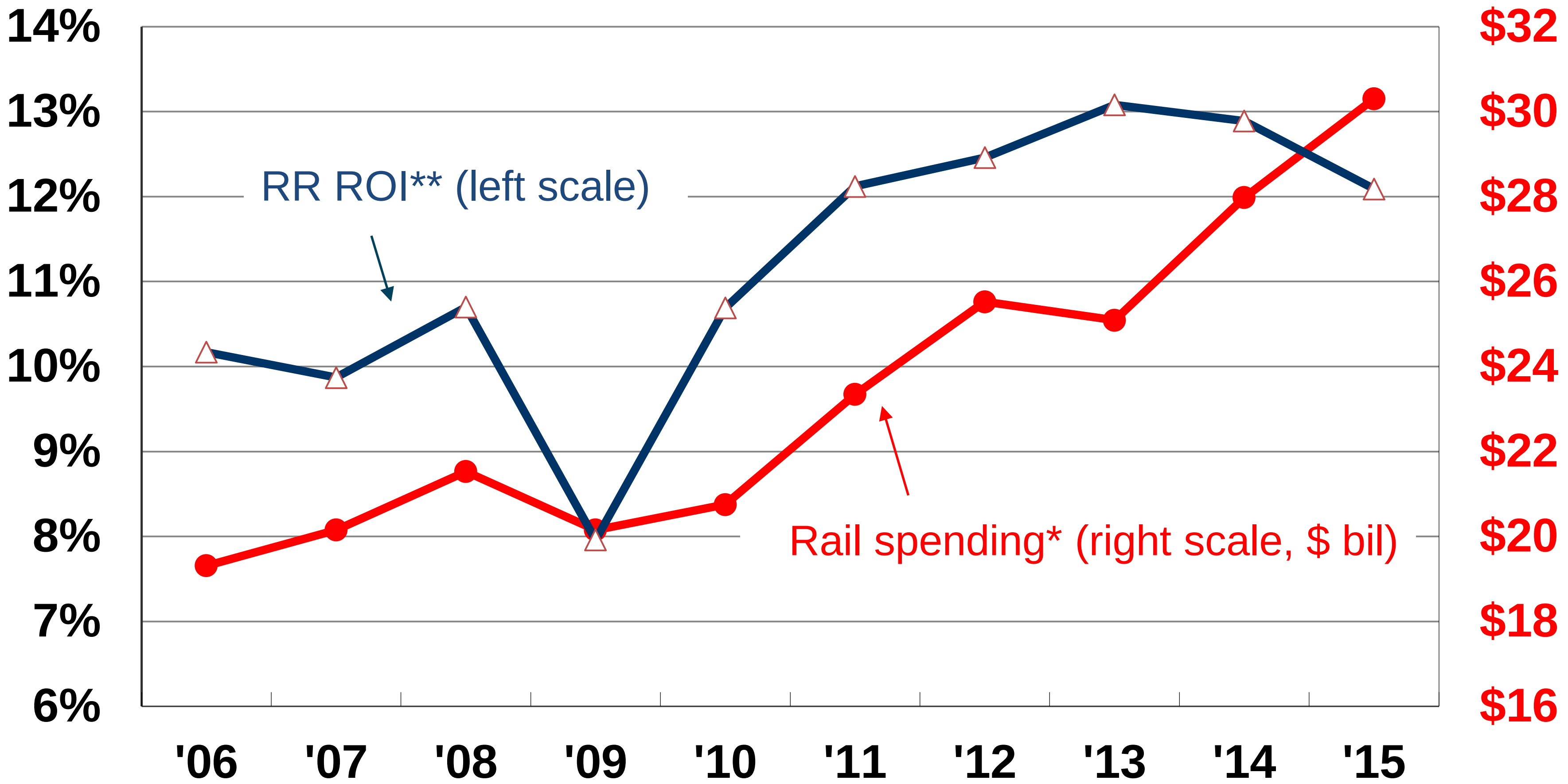
Source: Federal Highway Administration

Higher Rail Profitability = Higher Rail Spending



*Capital spending plus maintenance expenses.
Data are current dollars and are for Class I railroads. Source: AAR

Close Correlation Between RR ROI and Spending

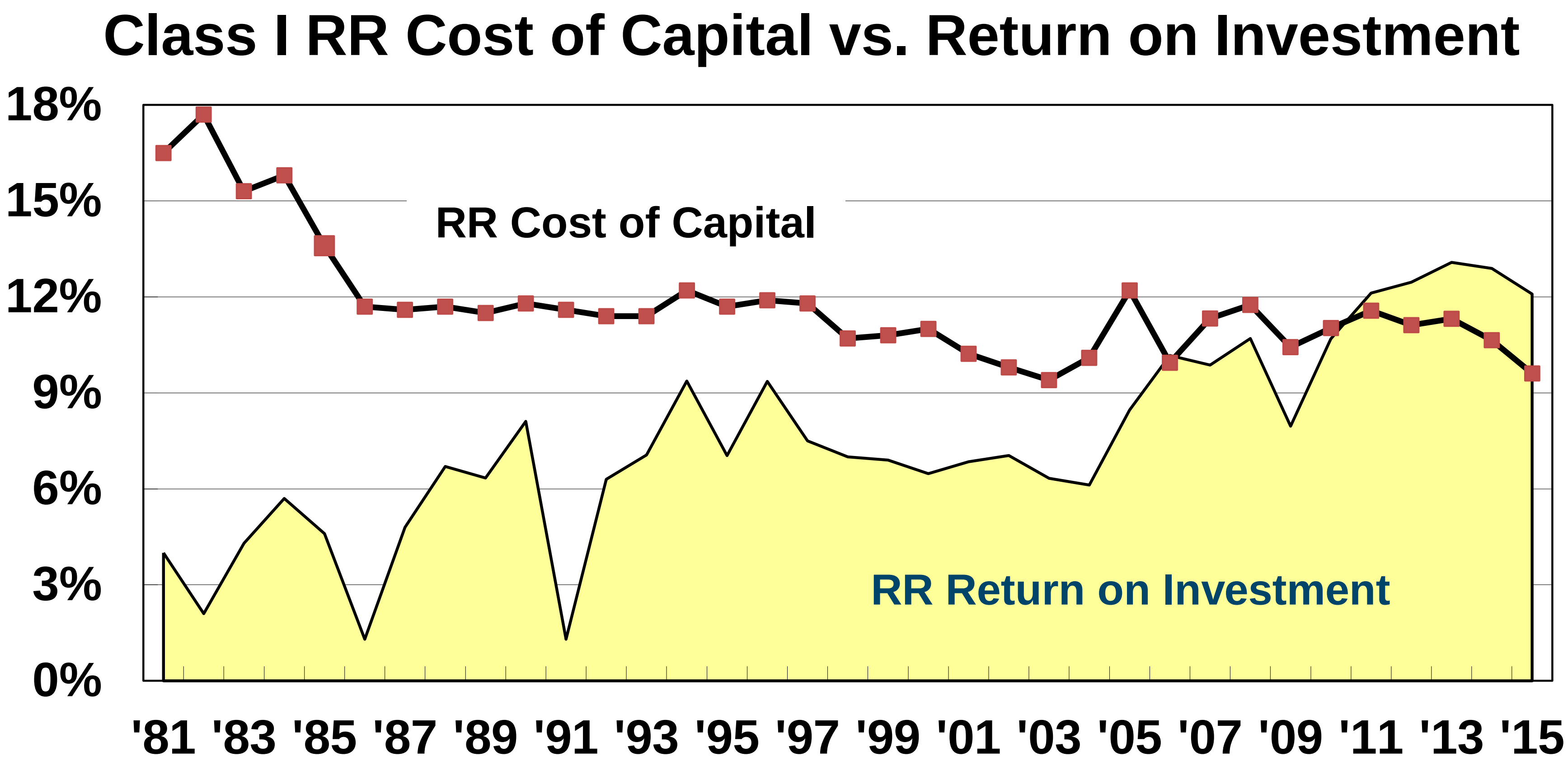


*Capital spending + maintenance expense. **Net railway operating income / average net investment in transportation property. Data are for Class I railroads. Source: AAR

Future RR Capex

- ***2016 Capex down across the board (annopunced average -16%!) – except CN and further midyear cuts bring 2016E to -20%?***
- ***Changing Mix of volumes - Most Important Decision Period in Years***
- ***2017 -Further cuts – Still able to avoid muscle?***
- Coal: “Stranded Assets”? NS selling segments….CSX of Tomorrow
- Coal/Mix: Reduced Gross Ton Miles=Reduced Maintenance of Way?
- *Yet remember: Service & Safety are even more critical to future RR success*
- *Changing mix of capex?*
- Changing %revenues (16-17%)? UNP @15%, CNI @ 20%
- PTC Extension resolution – more to develop? ECP?

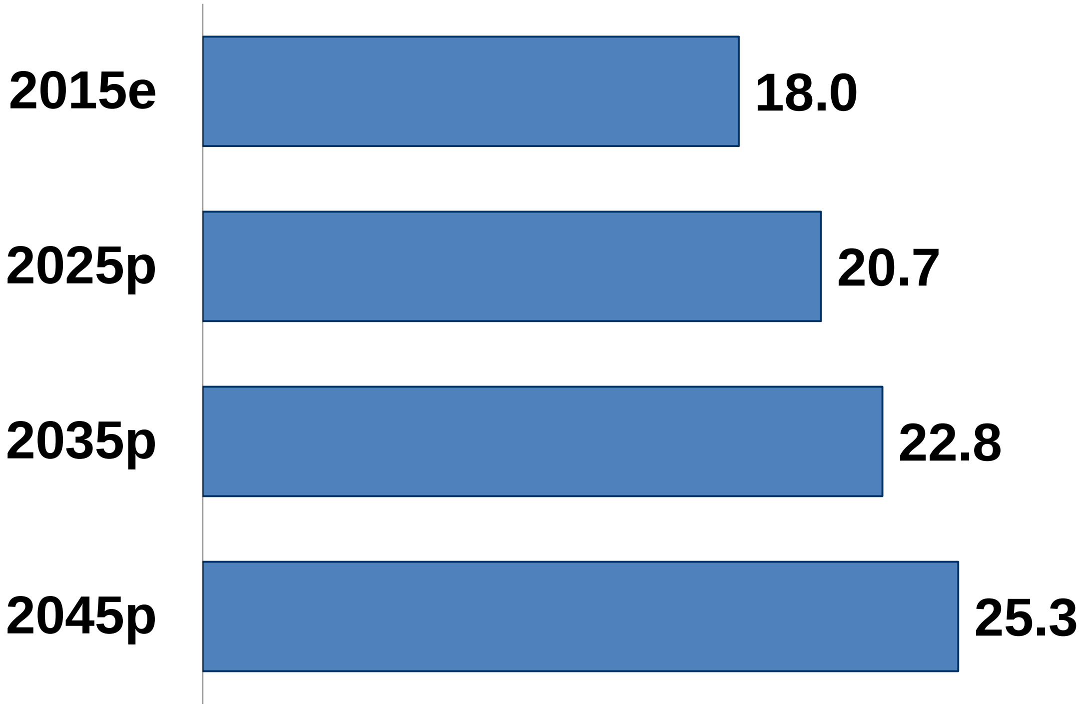
Railroads Have Only Recently Earned Their Cost of Capital



Note: In 2006, the Surface Transportation Board significantly changed the method by which it calculates the rail industry cost of capital. Source: STB

Long-Term Demand for Freight Transportation Will Grow

Billions of Tons of Freight Transported in the U.S.



The U.S. DOT forecasts total U.S. freight movements to rise from around 18.0 billion tons in 2015 to 25.3 billion tons in 2045 – a 41% increase.

e – estimated   p – projected   Source: FHWA - *Freight Analysis Framework*, version 4.3

Railroad Philosophy

- Critical to the "*RR Renaissance*" has been Capex
- Private vs public capital (failing US infrastructure)
- Capex sparked by growth and ROI prospects – examples: IM, CBR
- "Open Access" antithetical to this….right?
- Is a RR its ***Network*** (Class One belief) OR is it its ***Operators*** (Hunter)??
- Cult of the OR vs ROIC; EHH as "*victim of his own success*"; short-termism

Q3/17 Earnings

- <u>Grossly distorted</u> by weather (costs/revenues/rebuild)
- CSX impact (not just on CSX!)
- Outlook – tougher comps in coal, autos (?), sand
- Price/service/capex
- Beat expectations again? Yes – 4/2/1
- EPS beat S&P500 levels again
- Stocks significantly outperform

Railway Night Sweats

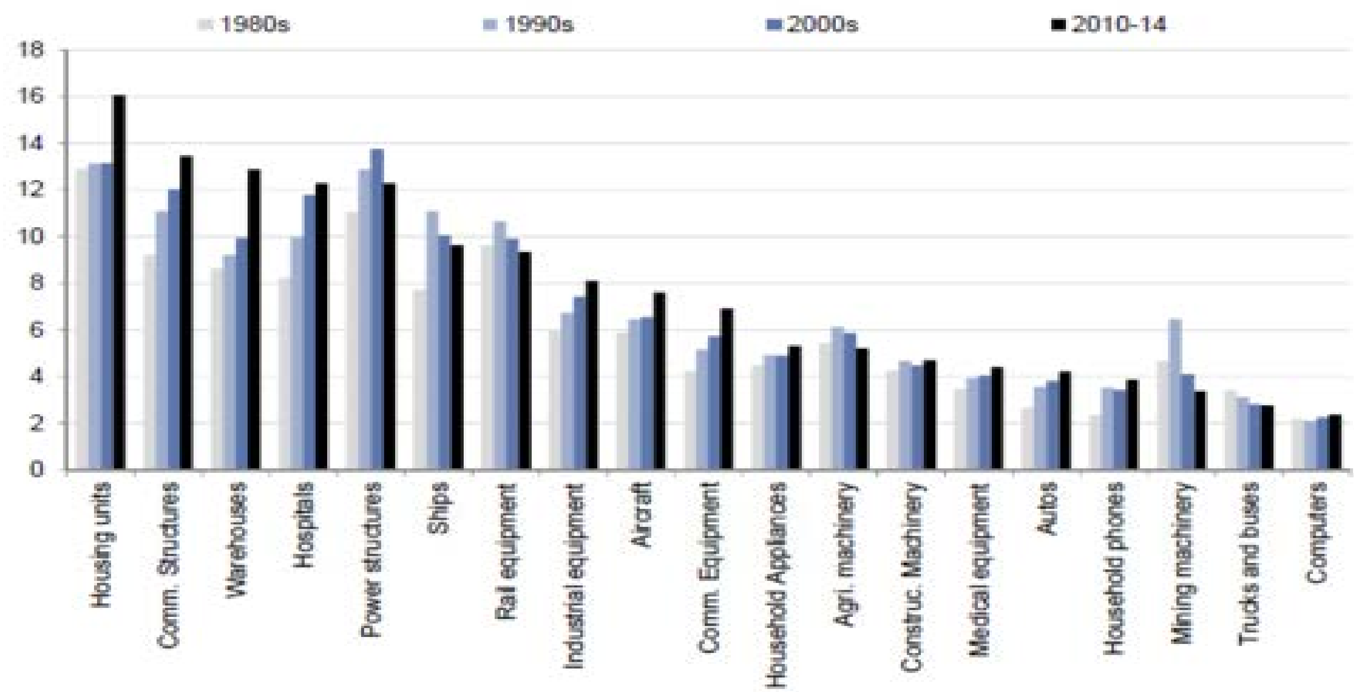
- Politics by Tweet
- Regulation - The *Evergreen*
- *Trade – Is Globalization over?*
- *Trade – Will we kill it? "America First" (42% of NA-car loads)*
- *(Specifically) NAFTA – which impacts S….&N!*
- Driverless – AV beer runs! (ahh the irony)
- Amazon – Who isn't scared?
- 3-D Printing – good enough for combat?   Or F1?
- *Short-Termism/Over-reactions*
- *Capex and FCF planning*

Competitive Advantage: RR Capex vs Aged National Infrastructure

Older assets may need renewal…

Older assets may need renewal…

Average age of infrastructure in years, historical cost method, US



Source: BEA.

“Our Troubled Industry*”?

- H1/17 OR averaged 63% H2 improvement by 200+bps
- Rails in best-ever condition
- Rail Finance – Margins, Cash Flow, etc – best ever
- Coal has stabilized, at least
- Volumes have inflected
- Intermodal is growing again
- *What’s next?*

*/*Trains Magazine March 2017*

ABH Consulting/www.abhatchconsulting.com

Anthony B. Hatch

1230 Park Avenue

New York, NY 10128

(917) 520-7101

ABH18@mindspring.com

www.railtrends.com